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ABSTRACT

Based on novels and books about the Mississippi River, this lesson plan presents activities designed to help students understand that the Mississippi River has made its mark on America's geography, commerce, and literature; and that booktalks provide a summary, explains what kind of reader the book will appeal to, and may also contain a oral reading of a section of the book. The main activity of the lesson involves students producing and presenting a booktalk on a book about the Mississippi River. It includes objectives, materials, procedures, adaptations, discussion questions, evaluation methods, extension activities, annotations of suggested readings and web links, vocabulary, and related academic standards and benchmarks addressed in the lesson plan. The lesson plan also contains a description of a video clip related to the lesson, comprehension questions related to the video clip, and answers to those comprehension questions. (RS)

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TITLE OF LESSON PLAN: Mississippi River

LENGTH OF LESSON: One class period (plus)

GRADE LEVEL: 6-8

SUBJECT AREA: Geography

CREDIT: Wendy Buchberg, instructional technology support specialist, Corning-Painted Post area school district, New York.

OBJECTIVES: Students will understand the following:

1. The Mississippi River has made its mark on the country's geography, commerce, and literature.
2. A booktalk provides a summary of the plot (for fiction) or an overview of the coverage (for nonfiction) and explains what kind of reader a given book will appeal to.
3. A booktalk may also contain an oral reading of a section of the book—to give potential readers a sense of the difficulty of the book.

MATERIALS:
For this lesson, you will need:

Access to the books listed in Procedures or other books that take the Mississippi River for their subject

PROCEDURE:

1. At some point in teaching about the Mississippi River, expose students to the wealth of literature that the Mississippi and other rivers have engendered. In preparing booktalks (oral reports) about the books, students will also have the opportunity to learn about or review the valuable skills of previewing, scanning, and skimming. Further, by starting students on the accessible books noted below, you will be giving them background and context for tackling Twain's *Life on the Mississippi* and *The Adventures of Huckleberry Finn* later on.

2. Either assign or allow students to select among the following titles plus others recommended by your school's media/resource specialist:

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Flood by Mary Calhoun (juvenile)
Flood: Wrestling with the Mississippi by Patricia Lauber
The Great Midwest Flood by Carole G. Vogel
*Letting Swift River Go*by Jane Yolen (juvenile)
Lostman's River by Cynthia DeFelice
Mississippi Solo: A River Quest by Eddy L. Harris
Old Glory: A Voyage down the Mississippi by Jonathan Raban
Old Man River and Me: One Man's Journey down the Mighty Mississippi by Mark A. Knudsen and Shawn Plank
A River Ran Wild by Lynne Cherry (juvenile)

3. Teach or review with students the basics of previewing a book: examining the table of contents (if there is one); noting if chapters have divisions and, if so, what kind; paying attention to heads, subheads, and subsubheads; looking to see if the book has a glossary or other useful material at its end.

4. Go on to teach or review with students the basics of scanning and skimming a book: Scanning is a method that helps a reader find a specific piece of information within a book; one effective way to scan is for the reader to cover the text with a sheet of paper, which he or she then moves down the page quickly, letting his or her eye follow the sheet of paper. Skimming is a method that helps a reader get an overall sense of a book; skimming involves glancing rapidly through the book, searching for heads and subheads, boldface terms, and topic sentences of paragraphs.

5. Next, share with students what you expect from them for their booktalks. Define a booktalk as follows:

> A booktalk provides a summary of the plot (for fiction) or an overview of the coverage (for nonfiction) and explains what kind of reader a given book will appeal to. A booktalk may also contain an oral reading of a section of the book—to give potential readers a sense of the difficulty of the book.

Even though you may limit the number of students who actually present booktalks in front of their classmates, you should expect all students to prepare and hand in to you their written notes for a booktalk.

6. After each student you select to give a booktalk finishes, allow students in the audience to ask questions about the book or, if other students have read the same book, to challenge facts or opinions in the speaker's presentation.

ADAPTATIONS:

Older students should be able to move into *The Adventures of Huckleberry Finn.* Set up reading groups, rotating the leadership position in each group among its students from day to day. Direct students to explore any topics that interest them as they move through the book, but insist that they spend at least some of their discussion time on the question of what meanings and power Mark Twain accords the river in this book.

DISCUSSION QUESTIONS:

1. Humans have always attempted to "meddle" with Mother Nature—by building dams, by diverting rivers, by draining swamps, and in many other ways. Have we been successful in our efforts to control our environment? Discuss your observations.

2. The Mississippi River is a vital part of the "heartland" of the United States, yet no single state can claim it as its own responsibility. Many "grassroots" organizations, as well as several federal agencies, attempt to oversee the river's well-being. How do you think the river could be "governed" so that responsibility would be fairly shared and opposing points of view could be given equal consideration?

3. Explain what would happen if the Mississippi River no longer flowed by New Orleans. Discuss what this would mean for the future of the region.

4. Explain in detail the navigational problems that challenge ships today as they try to make their way along the Mississippi River. What recommendations would you, as a layman, make to the U.S. Army Corps of Engineers to try to improve the situation?

5. Suppose you were the supervisor of pump stations in the New Orleans area. You are faced with an impending pump workers strike. Using your knowledge of the history and geography of the area, how would you persuade the workers to forgo the strike and find other means for them to settle their differences?

6. Throughout history, events of nature, such as floods, volcanoes, and earthquakes, have caused various important centers of civilization to self-destruct and disappear. Some people predict that the same thing will eventually happen in lower Louisiana. Talk about whether it makes sense to continue to invest financial and human resources in rechanneling the Mississippi River to avert a disaster, or if our efforts might be better spent on relocating vulnerable people and businesses to safer areas. Make sure to take economics, history, ecology, and geography into consideration, as well as the feelings of residents past and present.

EVALUATION:
You can assess your students' booktalks using the following three-point rubric:

- **Three points:** articulately summarizes or provides overview of the book; identifies a representative passage to read to listeners; speaks loudly and clearly, making good eye contact

- **Two points:** summarizes or provides overview of the book; identifies a representative passage to read to listeners; needs to speak more loudly and more clearly, making more eye contact

- **One point:** does not sufficiently summarize or provide overview of the book; does not identify representative enough passage to read to listeners; needs to speak more loudly and more clearly, making more eye contact

EXTENSION:

River Lingo

Can your students talk "river talk"? It's not a dialect but rather a vocabulary of words specific to river geography, history, and culture—a vocabulary that has cropped up over the years. Explain that the class will compile a river glossary.

Assign one or two of the Mississippi River terms, below, to each student:

bank	basin	bayou	Big Muddy
bluff	breakwater	channel	current
dam	erosion	flood control	floodplain
freighter	Gulf of Mexico	headwater	levee
lock	Mark Twain	meander	meltwater
Old Man River	oxbox	paddle wheel	push boat
reservoir	rip-rap	river lore	sandbar
sediment	silt	slough	source
spillway	spit	steamboat	swamp
tanker	tugboat	watershed	

Discuss with students where they can look for definitions if they can't find some of the preceding terms in a standard dictionary. After students have located definitions and put them into their own words, compile the definitions but omit the terms themselves from the heads of the definitions. Challenge each member of the class to correctly assign a term to each definition, using whatever resources they can think of. As a final step, have a committee of students compile the terms and their definitions into a glossary, which should include illustrations wherever necessary or possible.

Paddleboat Trip
The mighty Mississippi is a water superhighway for travelers. Have students act as travel agents for tourists looking for a leisurely cruise on a paddleboat. The travel agents must create a travel brochure that details the itinerary between New Orleans and St. Louis. In planning the travel package, students must research the following kinds of information to put into their brochures:
- The stops the paddleboat will make on the river and the number of days the cruise will last
- The diversity of the people, communities, and architecture that tourists will see along the river
- The range of climates and vegetation that tourists will notice along the river

Students can use online and print resources to research the trips they will offer. They can use the Web to contact and request information from the departments of tourism and chambers of commerce of the bordering communities.

Students may be aware of existing trips by the paddleboat *Delta Queen*. They may use promotion for that boat as one resource in planning their brochures, but they must not copy whole passages from that advertising.

SUGGESTED READINGS:

Floods
Michael Allaby. Facts on File, Inc., 1998.
Throughout the history of the world, people have tried to prevent floods by building levees, embankments, walls, and dikes to raise the height of riverbanks. In this exciting history of major floods around the world, pictures and diagrams will help you understand exactly what's being done to prevent future disasters - and how to survive a flood if one does occur in your area.

Rising Tide: The Great Mississippi Flood of 1927 and How It Changed America
John M. Barry. Simon & Schuster, 1997.
While tracing the history of the nation's most destructive natural disaster, this gripping book explains how ineptitude and greed helped cause the flood and how the policies created to deal with the disaster changed the culture of the Mississippi Delta. An absorbing account of a little-known event in American history, the story reveals how human behavior proved more destructive than the swollen river itself.

WEB LINKS:

Mississippi River Parkway Commission
The site is maintained by a multi-state organization whose purpose is to preserve and enhance the Mississippi River. There is an excellent map with navigational buttons.
http://mississippi-river.com/mrpc/

The River Resource
A collection of sources on rivers that is a good starting point for student research.
http://riverresource.com/

Nile of the New World: The Lower Mississippi River Valley
A comprehensive look at the Lower Mississippi River that is maintained by The National Park Service.
http://www.cr.nps.gov/delta/

Mississippi Headwaters Board
Information on protecting the first 400 miles of the Mississippi River.
http://www.mhbriverwatch.dst.mn.us/

Captain Jimmy
A great database on locks, dams and vessels on the Mississippi River.
http://www.towboat.org/

VOCABULARY:

bayou
A creek, secondary watercourse, or minor river that is tributary to another river or other body of water.
Context:
The Mississippi River's bayous are usually marshy and sluggish.

delta
The alluvial deposit at the mouth of a river.
Context:
The delta of a river provides fertile land that often experiences flooding problems.

eon
An immeasurably or indefinitely long period of time.
Context:
The Mississippi River has been changing its course over eons.

hydrometeorology
A branch of the science of weather that has to do with water in the atmosphere.
Context:
The flood of 1993 was caused by a significant hydrometeorological event: In other words, it rained, and it rained, and it rained.

levee
An embankment designed to prevent flooding.
Context:
It was expected that the levees would never fail in holding back the mighty river waters.

lock
A moveable barrier across a river or stream.
Context:
Locks enable vessels to pass through a river or canal by raising or lowering the vessel as they admit or release water.

sediment
The solid matter that settles to the bottom of liquid.
Context:
Each year, Mississippi River waters bring with them 250,000 tons of sediment—pieces of America.

ACADEMIC STANDARDS:

Grade Level: 9-12

Subject Area: geography

Standard: Knows the physical processes that shape patterns on Earth's surface.

Benchmarks: Understands how physical systems are dynamic and interactive (e.g., the relationships between changes in landforms and the effects of climate, such as the erosion of hill slopes by precipitation, deposition of sediments by floods, and shaping of land surfaces by wind).

Grade Level: 6-8

Subject Area: science

Standard: Understands basic Earth processes.

Benchmarks:
Knows how landforms are created through a combination of constructive and destructive forces (e.g., constructive forces, such as crustal deformation, volcanic eruptions, and deposition of sediment; destructive forces, such as weathering and erosion).

Grade Level: 9-12

Subject Area: American history

Standard: Understands the U.S. territorial expansion between 1801 and 1861 and how it affected relations with external powers and Native Americans.

Benchmarks:
Understands the impact of the Louisiana Purchase (e.g., its influence on politics, economic development, and the concept of Manifest Destiny; how it affected relations with Native Americans and the lives of French and Spanish inhabitants of the Louisiana Territory; how the purchase of the Louisiana Territory was justified).

Grade Level: 9-12

Subject Area: technology

Standard: Understands the relationships among science, technology, society, and the individual.

Benchmarks:
Knows that alternatives, risks, costs, and benefits must be considered when deciding on proposals to introduce new technologies or to curtail existing ones (e.g., Are there alternative ways to achieve the same ends? Who benefits and who suffers? What are the financial and social costs and who bears them? How serious are the risks and who is in jeopardy? What resources will be needed and where will they come from?).

Grade Level: 6-8

Subject Area: behavioral studies

Standard: Understands conflict, cooperation, and interdependence among individuals, groups, and institutions.

Benchmarks:
Understands that the decisions of one generation both provide and limit the range of possibilities open to the next generation.

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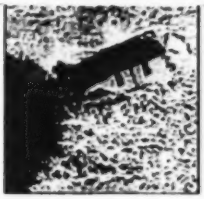
Video Information and Comprehension Questions



Video Description
"Wrestling the Mississippi" explains how the river took shape, explores the history of the people who have lived along its banks, and explains why the river may be due for a flood of disastrous proportions.

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Download Comprehension Questions & Answers ▶

The Comprehension Questions are available to download as an RTF file. You can save the file to your desktop and open it in a word processing program.

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TITLE OF VIDEO:
Wrestling the Mississippi

VIDEO COMPREHENSION QUESTIONS:

1. Why is the Mississippi River so vital to our nation's economic vitality?

2. People who live by and work on the Mississippi River have said that it is a river that is "alive." What do they mean by this?

3. What are some major environmental mistakes in America's past that have made it hard to control the course of the Mississippi today?

4. What role has the U.S. Army Corps of Engineers played in the attempt to tame the Mississippi River?

5. How can the Mississippi River change its course?

6. Why is dredging the Mississippi more important today than ever?

7. What ecological problems caused by the Mississippi River have become evident in lower Louisiana and New Orleans?

8. What new techniques may save the land in the New Orleans region?

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Wrestling the Mississippi

VIDEO COMPREHENSION QUESTIONS AND ANSWERS:

1. Why is the Mississippi River so vital to our nation's economic vitality?
Millions of Americans rely on the Mississippi River for transportation, food, employment, commerce, and drinking water.

2. People who live by and work on the Mississippi River have said that it is a river that is "alive." What do they mean by this?
The river is not a stable, static body of water; it changes its course, its width, and its speed, almost as if it had a mind of its own. For example, the Mississippi has been trying to join into the Achafalaya. In addition, the Mississippi River swamps are "alive" with some of the richest communities of wildlife in North America.

3. What are some major environmental mistakes in America's past that have made it hard to control the course of the Mississippi today?
The extensive over-paving of our country has had a disastrous effect on drainage patterns. The draining of swamps to create the plantations of the Old South has also proven to be problematic. Henry Shreve's intentional breakup of an ancient logjam in the neighboring Achafalaya River in 1828 caused Mississippi River waters to flow at an ever-increasing rate, altering the current and encouraging the river to change its course.

4. What role has the U.S. Army Corps of Engineers played in the attempt to tame the Mississippi River?
The U.S. Army Corps of Engineers has designed and improvised methods to keep the river in check. It constructed an immense concrete and steel girdle for the river. Recently, it has been using digital photography, satellites, and simulations to predict what turns the river will take next.

5. How can the Mississippi River change its course?
Each year, rains cause more than 250 million tons of sediment from the riverbanks to shift. As the sediment shifts, the shape of the river changes, causing a shift in its course.

6. Why is dredging the Mississippi more important today than ever?
As sediment is deposited, it lowers the water table, making the river shallower. This creates a big hazard for today's bigger and heavier cargo ships. Dredging is the process by which the U.S. Army Corps of Engineers pumps out sediment and uses it to create wetlands in other parts of the region.

7. What ecological problems caused by the Mississippi River have become evident in lower Louisiana and New Orleans?
In recent years, the land has been sinking at an alarming rate. Rain is a serious matter, requiring constant pumping into neighboring Lake Ponchartrain. Ecologists worry that the marshland buffer zone around New Orleans will disappear, leaving behind a coastal city stripped of its hurricane protection.

8. What new techniques may save the land in the New Orleans region?
The U.S. Army Corps of Engineers has been breaching levees at strategic locations along the river. This allows sediment deposits from the water to rebuild the land.

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